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ABSTRACT

Outdoor education is not merely about learning outdoor skills; it should also involve self-reflective activities. Meditation is a technique used for self-reflection, has many proven psychological and physiological benefits, and would be a good addition to any wilderness program. Research has shown that the psychological benefits of meditation include access to theta brain wave states for optimal learning, decreased stress, and more positive self-concept. Physiological benefits include lowered heart rate and blood pressure, and decreased oxygen consumption. College students instructed in mindfulness meditation during outdoor education trips were less bored and more engaged in activities than those who did not receive training. Meditation is more readily understood if the word "meditation" is replaced with "awareness" or "mindfulness." Meditation is awareness of one's thoughts, emotions, and feelings through full engagement in the present moment. Concentration is required in all meditation practices; a basic difference between various meditation forms is the primary focus of concentration. Common meditation principles are regulation of posture, regulation of breath, and regulation of concentration by focusing on breath. Two meditations that students can use in the wilderness--mountain meditation and river meditation--are briefly described. (SV)

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The Benefits of Meditation for Outdoor Education

Jim Ettenger

"To understand life is to understand ourselves, and that is the beginning and end of education. Education is not merely acquiring knowledge, gathering and correlating facts; it is to see the significance of life as a whole" (Krishnamurti, 1957). Outdoor education should be approached in a similar fashion. Outdoor education is not merely about being able to read a class III river correctly, learning backpacking skills, or evaluating snow conditions. Outdoor education should begin, involve, and finish with self-reflective activities. Meditation is a technique used for self-reflection, and has many proven psychological and physiological benefits. It enables people to discover more about themselves, and because of this, would be a great addition to any wilderness program.

This paper addresses two issues:

1. The benefits of meditation for outdoor education programs.
2. The practical application of meditation.

Why practice meditation? There are many forms of meditation or awareness training for people to choose. Research in the effects of meditation has shown meditation to produce psychological benefits including access to theta brain wave states for optimal learning (Steinhardt, 1997), decrease stress (Benson, 1984), more positive self-concept (Emhavardhana, Tori, 1997), and physiological benefits such as lowered heart rates, blood pressure, and decreased oxygen consumption (Hirai, 1989), and meditation can help a participant feel more engaged, and less bored on outdoor education trips (Trunnel,E, White, F., Cederquist,J., & Braza, J. 1996).

One main reason to consider the use of meditation in outdoor education programs is to look at Mihali Csikszentimihalyi's optimum learning state (OLS) research. Mihali Csikszentimihalyi stated the combination of factors that trigger the (OLS) include using deep breathing, relaxation, and verbal affirmations. The result was a three step technique that would only take a few minutes. "Earliest research into (OLS) linked the technique with obtaining theta brain waves. Investigations into electroencephalogram brain waves

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showed that when learning is at its peak, the brain emits electromagnetic waves at four-seven cycles per second (CPS), or theta range. The problem for those seeking access to the OLS is that it is difficult to attain. Steinhardt's three steps include:

1. Using deep breathing to create the OLS.
2. Using relaxation to deepen the OLS.
3. Using affirmations to lock in the OLS"(Steinhardt, 1997).

This allows the student to go from a normal, thinking beta state, into a relaxed alpha state, and then into a theta state, which is considered the most beneficial area of brain wave activity for intense concentration.

In his book, The Relaxation Response, Herbert Benson defined the concept of meditation as the inborn capacity of the body to enter a special state characterized by lower heart rate, decreased rate of breathing, lowered blood pressure, slowed brain waves, and overall reduction in the speed of metabolism. In addition, changes produced by the response counteract the harmful effects, lowered immunity and uncomfortable feelings of stress [from the production of fight or flight hormones.] (Benson, 1984.) He believes certain meditative prayerful instructions can be used to elicit the relaxation response. His four step procedure involves:

1. finding a quiet environment;
2. consciously relaxing the bodys muscles;
3. focusing for ten to twenty minutes on a mental device, such as the word one or a brief prayer; and
4. assuming a passive attitude toward intrusive thoughts. (Benson,1984).

Benson's research has proven to: relieve headaches, enhance creativity, overcome insomnia, enhance the therapy of cancer, control panic attacks and alleviate some symptoms of anxiety, reduce overall stress and achieve greater inner peace and emotional balance (Benson, 1984).

Another main reason to use meditation in outdoor education programs can be found in K.R. Wallace's research. "In 1972, K.R. Wallace, and H. Benson reported extremely interesting tentative findings connected with the physiological correlation's of meditation. Thirty-six subjects were given short-term training in the techniques of transcendental meditation (an awareness producing activity). Measurements were then made before, during, and after meditation of their blood pressure, heart rate, blood lactate concentration, oxygen consumption, and carbon dioxide elimination. It was learned that during meditation, heart rates decelerate, oxygen consumption falls sharply, blood lactate con-

centration declines. Electroencephalograms (EEG's) taken of these subjects during meditation showed a marked increase and greater amplification of alpha brain waves" (Hirai, 1989).

In 1996, Emavardhana and Tori conducted a study over a seven day period during a vipassana meditation retreat, with over 400 Thai teenage meditators. The study was designed to assess changes in self-concept, ego defense mechanisms, and spiritual beliefs. The results show that "the retreat had positive effects on self-concept and unconscious ego defense mechanisms" (Emavardhana, Tori, 1997). Also, the participants became characterized by greater maturity and less reactivity to common stressors.

Also in 1996, Trunnell, Cedarquist, White, and Braza made a study about optimizing an outdoor experience for experimental learning by decreasing boredom through mindfulness training. The study used the method of concentration meditation (or Samatha meditation).

To clarify, Buddhist mindfulness training is composed of two aspects:

Concentration (Samatha) meditation: The attention is placed on breathing.

As thoughts, feelings, or sensations occur, they are named and the focus is returned to breathing. For example, what am I thinking? - planning, worrying about, what am I feeling? - happy, sad, joy, anger, what am I experiencing?-tension, peace.

Insight (Vipassana) meditation- The attention stays with the arising and passing of thoughts, feelings, or sensations. No returning to breath focus, and no labeling.

The Trunnell, et. al., study involved college students enrolled in the University of Utah recreation courses in 1994. Half of the students were instructed in mindfulness meditation during the outdoor experience weekend trips. The results show that participants who received mindfulness training were less bored, and felt more engaged in activities than those whom had not received mindfulness training (Trunnell, Cedarquist, White, Braza,1996).

The practical application of meditation.

For many people, meditation is an esoteric concept. They imagine Indian yogis sitting in caves or monasteries, and have reservations about trying the activity. But what happens when a person has a paradigm shift towards meditation? This would happen if the word "meditation" is replaced with "awareness" or "mindfulness". Meditation is awareness. This includes awareness of ones thoughts, emotions, feelings, and sensations, through full engagement in the present moment.

Concentration is required in all meditation practices. The meditator must be able to keep his/her mind focused on a specific task or object, and allow distractions to go by, no matter which technique is used. "To develop concentration, we choose a single object of awareness, the primary object, that the attention is "re-minded" to return to and encouraged to stay with. A basic difference between various meditation forms such as TM, Sufi dancing, confronting Zen koans, sitting meditations, Christian prayer, chanting mantra, listening to the inner sound of current, observing sensations in the body, visualizing techniques, or watching the breath- is the primary object on which concentration is developed" (Levine, 1989.) Many of the above activities can be practiced as meditations, along with activities such as watching a camp fire flame, any martial art, yoga, dancing, walking, lying down, any fitness activity, work, talking. Virtually every aspect of life can be done with more concentration or awareness.

How to traditionally practice meditation

Traditional Tibetan, Zen and other common meditation principles will be briefly described. The most common meditation principles include:

1. Regulation of posture- This includes sitting straight but relaxed, keeping head, neck and spine aligned, and shoulders loose. Crossing legs, Indian style, distributing weight evenly and sitting on pelvic bones on a cushion.

2. Regulation of breath- breathing normally and focusing on the point where air leaves and enters the body (the end of the nose). Focusing on the exhalation and inhalation.

3. Regulation of concentration- focus on outbreath and inbreath. When a thought, feeling or sensation occurs, acknowledge it by labeling it appropriately such as, "thinking, or joy, or confusion, or discomfort . . .". After labeling it, return focus to the breath. The cycle is sure to repeat over and over. Always try to acknowledge what is happening, label it, and return to the breath, without judgment.

This focus can be applied anywhere. An outdoor education student could practice mindful eating, mindful walking during backpacking or scrambling, more mindfulness while rock climbing, more awareness on a challenge course. An increase in awareness might also help the facilitator generate better group debriefings.

Outdoor Meditations

There are various meditations outdoor education students can use in the wilderness. Two examples are mountain and river meditations.

Mountain meditation- Mountains symbolize strength, beauty, and are held sacred in

many cultures. Many people have sought spiritual guidance in and around them. When beginning to mediate, find a mountain area, sit cross legged, focus on the mountains shape, surface, ecology, wildlife, and weather surrounding it. Observe how the atmosphere changes the landscape, sometimes rapidly. Observe how you are feeling with the change and how you are like the mountain. Sit up tall, like the mountain. Just observe it! When the meditation is over, then would be time for reflection, via journal writing, or thinking about what transpired. Explore feelings, emotions, thoughts, and sensations which were uncovered.

River Meditation- Find a creek, stream, or river and sit down near the bank. Just observe for fifteen minutes. Next, focus on the running water at one specific area for your concentration. If you are distracted by anything, label it appropriately and return to the point. Notice leaves, twigs, floating down the stream. There will always be things floating downstream, and disrupting your concentration on one point. The floating leaves and twigs can symbolize random thoughts. They will always be there. The purpose is not to stop them, it is impossible. The purpose is noticing them, labeling them, and returning to your concentration point. This practice will ultimately help increase concentration levels for any aspect of your life.

From the research and concepts discussed in this paper, the benefits of meditation in the experiential education world can more clearly be seen. Meditation has proven psychological benefits. It enhances learning through altering brain wave states. It helps an individual attain greater self understanding and peace of mind and lowers stress. Meditators will naturally reflect upon what occurred in their meditation. Through reflection and discussion deeper learning and understanding takes place. This is experiential education- learning by doing with reflection! Meditation can become one more tool, a very powerful tool, in the experiential educator's toolbox, to enhance the climate for learning and enjoyment in the outdoors.

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